

GLOSSARY

A

Above base flow – the volume of flow in the river, which is generated from rainfall runoff that is above the base river flow as established by the State or local regulatory agencies

Alluvial Water – water within the alluvial soil or earth material which has been deposited by running water, as in a riverbed, flood plain, or delta

Average day demand – total amount of raw water used in a calendar year divided by the number of days in the year

B

Bank storage – is the temporary increase in groundwater levels in the alluvial river bank during periods of high (excess) river flows

Base flow – minimum flow in the river to meet minimum desired streamflow and some surface water rights

C

Contingency allowance – a percent dollar amount added to all costs to account for unknown and unaccounted-for items

D

Diversion facility/surface water intake – transfer of water from a stream by a canal, pipe, well, or other conduit to an aquifer or other source of water, or another watercourse or to the land

Diversion well – transfer of water from a streambank by a well, to an aquifer or other source of water, or another watercourse or to the land

E

Evapotranspiration – water dissipated to the atmosphere by evaporation from water surfaces and moist soil, and by plant transpiration

Eutrophication – overfertilization of a water body due to increases in mineral and organic nutrients, producing an abundance of plant life which uses up oxygen, sometimes creating an environment hostile to higher forms of marine animal life

F

Firm capacity – (safe peaking ability) available flow with largest unit out of service, in large number of units – 10% out of service for planning purposes

Firm yield – (1) yield of reservoir during most severe drought of record
(2) pumping rate which will not cause incrustation or solidification damage to aquifer

Flood storage – that part of a reservoir's total storage capacity that is allocated for temporary storage of flood waters

G

Groundwater flow – the movement of water through openings in sediment and rock that occurs in the Zone of Saturation

Groundwater modeling – (1) a digital computer model that calculates a hydraulic head field for the modeling domain using numerical methods to arrive at an approximate solution to the differential equation of ground-water flow (2) any representation, typically using plastic or glass cross-sectional viewing boxes, with representative soil samples, depicting groundwater flows and frequently used for educational purposes

H

Header transmission piping – piping that serves as a central connection for two or more smaller pipes

L

Leakage water – is stored water that has migrated from the Equus Well Field and re-entered the Little Arkansas River due to the natural gradient of the groundwater system

M

Maximum day demand – highest raw water demand on a given day in a calendar year; usually occurs in July or August

N

Natural recharge – the natural process by which water flows into an aquifer

Non-potable – used to describe water that is not suitable for drinking because it contains pollutants, contaminants, minerals, or infective agents

P

Planning horizon – the overall time period considered in the planning process

that spans all activities covered in or associated with the analysis or plan and all future conditions and effects or proposed actions which would influence the planning decisions

Physiography – The study of the earth's surface and oceans, atmosphere, etc.

R

Raw water – (1) water that is direct from the source—ground or surface water—without any treatment (2) untreated water, usually that entering the first unit of a water treatment plant

Rain harvesting – the harvesting or collection of rainfall

Recharge basin – basins

Recharge wells – wells that work directly opposite of pumping wells to inject water into an aquifer

Reclaimed water – refers to water that has received at least Secondary Wastewater Treatment and is reused after flowing out of a wastewater treatment facility

Riparian – (1) pertaining to the banks of a river, stream, waterway, or other, typically, flowing body of water as well as to plant and animal communities along such bodies of water (2) vegetation areas next to and affected by surface and subsurface hydrologic features of rivers, streams, lakes, or drainage ways

S

SCADA system – supervisory control and data acquisition system

Soil Profile – A vertical section of the soil from the surface through all its horizons. The three basic horizontal layers that may be observed in a soil profile are the A, B, and C-horizons. The A horizon, or topsoil, is the main source of plant nutrients. Soluble materials leach from the A horizon down to the subsoil, or B-horizon. This is the zone of clay accumulation. The deepest layer, the C-horizon, is composed of partially weathered bedrock.

Spillage – water that overflows into the spillway of a dam

Static level – the level of water in a nonpumping or nonflowing well

Surficial - characteristic of, pertaining to formed on, situated at, or occurring on the earth's surface; especially, consisting of unconsolidated residual, alluvial, or glacial deposits lying on the bedrock

T

Total pumping capacity – summation of capacity with all units working

U

Unaccounted-for-water – treated water, which is lost in the system because of pipe leakage, inaccurate meters, and unaccounted for uses

W

Water rights – (1) a legally protected right, granted by law, to take possession of water occurring in a water supply and to put it to Beneficial Use (2) withdrawal rates are based on firm yield.

Well header – the physical structure, facility, or device at the land surface from or through which ground water flows or is pumped from subsurface, water-bearing formations